

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

EIGHT NEW SPECIES OF PLANTS FROM MEXICO.¹

BY PAUL C. STANDLEY.

The species of plants described here are with one exception either trees or shrubs. Most of them have been collected by Mr. J. G. Ortega of Mazatlan, Mexico, who has obtained a comprehensive series of Sinaloa plants during the past few years.

The two plants described below are referred to the genus *Hyperbaena* with considerable hesitation, since the material upon which they are based is incomplete. It may well be that they belong to some other genus of the Menispermaceae, or that they represent an undescribed genus. The writer has had them upon hand for several years without being able to place them satisfactorily, but he is now convinced that they are members of the Menispermaceae, and it seems best to describe them tentatively as species of *Hyperbaena*, the only closely related group of the family thus far reported from Mexico.

Hyperbaena (?) *ilicifolia* Standl., sp. nov.

Tree, 6-10 m. high, the branchlets subterete, minutely cinereous-tomentulose or glabrate; leaves alternate, the petioles stout, 8-12 mm. long, cinereous-puberulent or glabrate; leaf blades oval or elliptic in outline, about 9 cm. long and 5.5 cm. wide, acute at apex and pungent-mucronate, broadly cuneate at base, rounded at the point of attachment, the marginal nerve continued across the upper surface of the petiole, thick-coriaceous, glabrous above or puberulent along the elevated costa, the nerves inconspicuous, beneath densely and finely pubescent, the costa very prominent, the lateral nerves 4 or 5 pairs, the lowest pair arising above the base of the blade, the ultimate nerves prominent and very closely reticulate, forming a dense network, the margin of the blade coarsely dentate, with 3 or 4 teeth on each side, these broadly triangular, divaricate, acute, terminating in a stout spinose tip; fruiting peduncles axillary, solitary, apparently 1-fruited,

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4-7 mm. long, tomentulose; fruit oval, about 2 cm. long and 1.5 cm. broad, slightly compressed, glabrous, the flesh very thin, the scar of attachment lateral near the base, the apex broadly rounded; seed about as large as the fruit.

Type in the U. S. National Herbarium, no. 399,281, collected at Cayaco, Michoacán, Mexico, March 29, 1903, by E. W. Nelson (no. 6962).

The fruits are so immature that the structure of the embryo can not be determined with any certainty, but there is no indication of the presence of endosperm. In his monograph of the Menispermaceae¹ Diels states that the species of *Hyperbaena* are scandent shrubs. Two species, *H. tonduzii* Diels and *H. phanerophlebia* Standl., common in Salvador, are trees of medium or large size, with no indication of a climbing habit, and the same is probably true of many other species of the genus.

***Hyperbaena* (?) *denticulata* Standl., sp. nov.**

Shrub 2.5 m. high, with numerous stems, the young branchlets densely yellowish-tomentose, the leaf scars very large and elevated; leaves alternate, the petioles stout, 2-2.5 cm. long, densely tomentose or finally glabrate; leaf blades oval or ovate-oval, 10-13.5 cm. long, 7-9 cm. wide, rounded or very obtuse at apex and spinulose-mucronate, truncate or shallowly cordate at base, thick-coriaceous, slightly lustrous on the upper surface, puberulent when young but later glabrate, the costa salient but the other venation not conspicuous, beneath paler, densely puberulent, 5-nerved or quintuplinerved at base, the venation salient, the lateral nerves 3 or 4 pairs, arcuate, irregular, the ultimate nerves closely reticulate and forming a dense network, the margin cartilaginous-thickened, a few of the nerves extending to the margin and ending in a pungent mucro; fruits borne on axillary inflorescences, these apparently cymose or racemose, the rachis very thick, tomentose, the pedicels very short; fruit oval, about 2 cm. long and 1.5 cm. wide, slightly compressed, rounded at apex, smooth, glabrous, the scar of attachment lateral near the base.

Type in the U. S. National Herbarium, no. 209,172, collected at base of mountains, Manzanillo, Mexico, December, 1890, by Edward Palmer (no. 1029). A specimen of the same collection is mounted upon sheet 567,700.

In his notes Dr. Palmer states that the vernacular name is *chilillo*, and that the fruit is reported to be black at maturity. The fruits collected are too immature for determination of the structure of the embryo.

The two plants described above are evidently congeneric. They differ from the known species of *Hyperbaena* in having denticulate or coarsely dentate leaves, the leaves of the other species being entire.

***Capparis mollicella* Standl., sp. nov.**

Branchlets stout, sparsely pilose with very short whitish hairs; petioles slender, 6.5-11.5 cm. long, very sparsely short-pilose; leaf blades elliptic or narrowly elliptic, 16-22 cm. long, 9-10 cm. wide, obtuse at base and apex, thin, with cartilaginous margin, glabrous on the upper surface, beneath rather densely and very finely pubescent with white simple hairs, the lateral

¹In Engl. Pflanzenreich IV. 24. 1910.

nerves about 6 pairs; inflorescence terminal, racemose, short and few-flowered, the rachis thick, pubescent; pedicels slender, 4–5 cm. long; sepals ovate-oval, 6–7 mm. long, rounded at apex, doubtless imbricate in bud, glabrous or nearly so, thin; petals oblong or narrowly oblong, 2–2.5 cm. long, rounded at apex, glabrous, apparently spreading; stamens very numerous, about 5 cm. long; ovary narrowly oblong, glabrous, borne on a long slender stipe.

Type in the U. S. National Herbarium, no. 1,111,324, collected at La Bajada, Nayarit, Mexico, altitude 80 meters, in 1923, *J. G. Ortega* 103.

A striking plant, apparently not closely related to any species previously reported from Mexico.

***Pithecollobium caesalpinoides* Standl., sp. nov.**

Tree or shrub, the smaller branches stout, geniculate-tortuous, grayish, conspicuously lenticellate, armed with stout, divaricate or ascending stipular spines 6–10 mm. long; leaves sparse, the petioles slender, 13–18 mm. long, minutely white-hirtellous with ascending or subappressed hairs, bearing at the apex a stipitate crateriform gland; pinnae 3 or 4 pairs, 1.5–3.5 cm. long, the leaflets 4–7 pairs, oblong, 5–8 mm. long, 2.5–3.5 mm. wide, obtuse or rounded at apex, very oblique at base, appressed-ciliate but otherwise glabrous, 2 or 3-nerved at base; flowers in very dense headlike spikes about 1 cm. long and 8 mm. in diameter (excluding the stamens), these sessile or short-pedunculate on old wood; calyx 1 mm. long puberulent, shallowly dentate; corolla greenish, 3 mm. long, glabrous below, puberulent on the short obtuse teeth; stamen tube slightly exerted beyond the corolla, the stamens very numerous; fruit apparently sessile, the valves oblong, 15–18 cm. long, 4.5 cm. wide, 5 mm. thick or more, very hard and woody, incurved, strongly convex; seeds (not seen) 10 to 12.

Type in the U. S. National Herbarium, no. 1,111,319, collected at El Zapote, Municipalidad de Mazatlán, Sinaloa, Mexico, in 1923, by Sr. J. G. Ortega (no. 5218). This specimen consists of flowering material. Fruiting specimens are mounted on sheet 1,111,327.

The vernacular names are given as *tempisque* and *guaypinole*, the latter probably being the more accurate. *Pithecollobium caesalpinoides* is related to *P. flexicaule* and *P. confine*, but differs from both in its very large fruit. In *P. confine* the inflorescence is capitate.

***Jatropha malacophylla* Standl., sp. nov.**

Shrub or small tree, the young branchlets very thick, densely tomentose at first; petioles slender, 1.5–2.5 cm. long, densely short-pilose; leaf blades rounded-ovate in outline, about 4 cm. long and broad, cordate at base with broad open sinus, shallowly 3-lobate or sometimes entire, the lobes broad, abruptly acute or acuminate or sometimes gradually acuminate, entire, densely pubescent on both surfaces with short spreading whitish hairs; staminate inflorescence cymose, about 6–10-flowered, 1.5–2 cm. broad, the peduncle 3–15 mm. long, the pedicels 3–5 mm. long; sepals oblong or elliptic-obovate, 3 mm. long, obtuse or rounded at apex, glabrous but ciliate;

corolla 4–4.5 mm. long, the petals united to above the middle, rounded at apex, glabrate.

Type in the U. S. National Herbarium, no. 1,111,320, collected at El Zapote, Municipalidad de Mazatlán, Sinaloa, Mexico, in 1923, by Sr. J. G. Ortega (no. 5208).

Related to *J. cinerea* (Ortega) Muell. Arg., but in that species the leaves are entire or nearly so, and their pubescence is closely appressed. The vernacular name of *J. malacophylla* is *sangregado*.

Malache ortegiana Standl., sp. nov.

Branches stout, terete, glabrous; petioles of the larger leaves 13 cm. long or more, glabrous, the blade rounded in outline, about 28 cm. long and wide, deeply cordate at base, with rounded overlapping lobes, 5-lobate about one-third the distance to the base, the lobes broadly triangular, acute, irregularly and shallowly crenate, very finely and closely stellate-pubescent on the upper surface, beneath densely stellate-tomentose with spreading hairs; uppermost leaves much reduced but similar to the lower ones; inflorescence racemose, the racemes about 28 cm. long, naked or (abnormally?) sometimes leafy above; pedicels stout, ascending, 1.5–3 cm. long, solitary, sparsely or densely stellate-hispidulous; bractlets about 10, linear, equaling or slightly exceeding the calyx; calyx campanulate, 8–10 mm. long, densely stellate-hispidulous, the lobes broadly triangular, acute; petals erect, probably white, 12–14 mm. long, puberulent outside; pistil about equaling the petals; fruit subglobose, 1 cm. in diameter, 5-carpellate, the carpels with an acute incurved apex, glabrous on the back, smooth but with a median ridge, the edges of the carpel very acute.

Type in the U. S. National Herbarium, no. 1,111,326, collected in the State of Nayarit, Mexico, in 1923, *J. G. Ortega* (no. 68).

A very distinct species, apparently with no close Mexican relatives.

Parathesis prionophylla Standl., sp. nov.

Branchlets stout, subterete, densely brown-tomentose with stellate hairs; petioles stout, 1–1.5 cm. long, densely brown-tomentose; leaf blades elliptic or oblong-elliptic, 13–14.5 cm. long, 5.5–7 cm. wide, acute or acuminate, cuneate-attenuate at base, chartaceous, closely and finely punctate, glabrous above or nearly so, beneath thinly and minutely stellate-tomentulose, the costa salient beneath, the lateral nerves slender, about 14 pairs, the margin coarsely serrate-dentate, the teeth 7–11 on each side, broadly triangular, obtuse, 4–5 mm. long; inflorescence terminal, many-flowered, rather openly pyramidal, 10 cm. long, the corymbs few-flowered, the pedicels 2–5 mm. long, stellate-tomentose; flowers before anthesis 5–6 mm. long, stellate-tomentulose with brown hairs; sepals oblong-lanceolate, united at base, acuminate, 2–2.5 mm. long; petals short-connate, narrowly lance-oblong, attenuate to the apex; stamens shorter than the petals, the filaments very short, the anthers yellow, 2.5 mm. long; ovary ovoid, sparsely short-pilose at apex.

Type in the U. S. National Herbarium, no. 1,111,322, collected in Arroyo de Jalio, Nayarit, Mexico, altitude 540 meters, in 1923, *J. G. Ortega* 52.

Among Mexican species of the genus this may be recognized at once by the coarsely toothed leaves. The vernacular name is *capulincillo de faisán*.

***Ruellia konzattii* Standl., sp. nov.**

A large coarse herb, densely short-villous with white hairs, many of the hairs gland-tipped; petioles slender, 10–13.5 cm. long, pubescent like the stems; leaf blades ovate to rounded-ovate, 18–30 cm. long, 12–21 cm. wide, rather abruptly acuminate, deeply cordate at base with narrow sinus, thin, closely undulate-crenate, thinly short-villous on the upper surface, more densely short-villous beneath with white hairs; inflorescences axillary, on slender peduncles 17–20 cm. long, consisting of a pedicellate central flower and of two lateral 3-flowered cymes, these on peduncles about 4 cm. long, the pedicels 6–7 mm. long, viscid-villosulous; calyx lobes broadly linear, about 5 cm. long, 3–4 mm. wide, tapering gradually from the base to a blunt tip, densely short-villous with white hairs and more or less viscid; corolla 7–9 cm. long, obliquely funnelform, the tube about 2 cm. long and 6 mm. thick, the throat 2.5–3.5 cm. long, with a large inflated sack at base, white-villosulous outside, the lobes broadly ovate-oval, rounded or obtuse at apex; anthers 12 mm. long; capsule narrowly oblong, 4 cm. long, sessile, slightly narrowed at base, acute at apex, glabrous; seeds (immature) rounded-ovate, flat, 6 mm. long, glabrous, narrowly winged.

Type in the U. S. National Herbarium, no. 1,082,979, cultivated at Oaxaca, Mexico, from seeds gathered at Pochutla, October 31, 1921, *C. Konzatti* 4240.

The only closely related species is *R. bourgaei* Hemsl., in which the leaves are not cordate at base but are long-decurrent upon the petiole, while the calyx lobes are shorter and much broader, and the corolla is glabrous outside.